

## **ABSTRACT**

The invention provides methods and materials related to heart valves and the treatment of valvular heart disease. Specifically, the invention provides non-murine heart valve cells and heart valve cusps as well as methods for making heart valves. The invention also provides methods and materials for (1) slowing heart valve degeneration, thrombosis, and calcification, (2) treating carcinoid heart disease, (3) identifying inhibitors of heart valve degeneration, thrombosis, and calcification, and (4) determining the safety of drugs.

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